Machine Learning

What is Machine Learning?

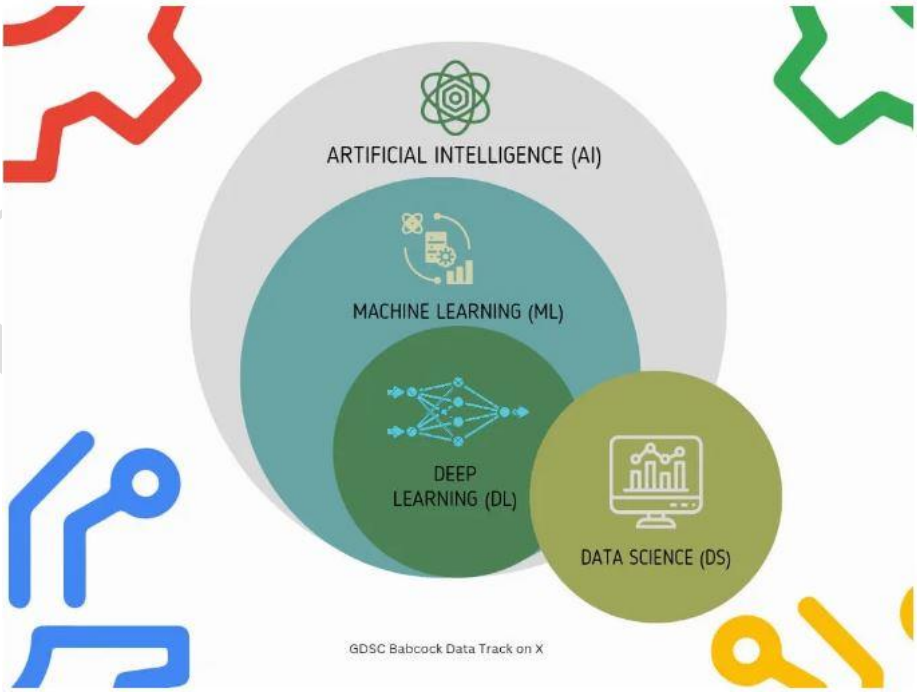
Machine Learning is subset of AI field; in which computer learn from examples. Here examples are in form data. In other words, Machine learning is like teaching a computer to learn from examples instead of giving it explicit instructions.

Consider the real life example of teaching a kid to recognize animals. Instead of telling the kid, "This is a dog, that's a cat," you show them pictures and say, "This is a dog," "That's a cat," and so on. Eventually, the kid learns to recognize animals on their own.

AI VS ML VS DL VS DS

In this digital era, you might hear the terms like Artificial Intelligence, Machine Learning, Deep Learning and Data Science. So what is actual difference between them?

- AI: - Can perform it own task without human interaction.
- ML: - Use statistical tools, algorithms and analyse data, predict data or classify.
- DL: - Creating mimic of human brain
- DS: - extracting meaningful information from data which is combination all above mentioned operations.



Working of Machine Learning Model

In working of Machine Learning model it involves various steps which include, provide input data, data cleaning, model training, making predictions and Feedback & Improvement.

- Input Data:- Essential thing to perform certain task is Data. It can be structured, unstructured, text Images etc.
- Data Cleaning:- Our data may contain missing values, Null values, duplicated data. To handle such kind of issues. We have to perform certain operation to handle certain issues.
- Model Training: - Here machine start learning, starts to notice patterns. The machine then uses a mathematical model to analyse the extracted features and learn the underlying patterns in the data.
- Making predictions:-It involves making guesses or estimations about new, unseen data based on the patterns it has learned during the training phase.
- Feedback and Improvement:- The process refer to evaluating the performance of the model on new data and using that feedback to refine and enhance the model's accuracy and effectiveness.